

Work Order ID 48590A

Friday, June 26, 2009 11:52:11 AM



Page 1

Item ID: D3822-1KIV
Revision ID: B C R
Item Name: Vertical Tunnel, LH-Ivory

Accept



Setup Start



Stop



Start Date: 7/15/2009 Start Qty: 3.00



Cust Item ID:

Required Date: 8/3/2009 Req'd Qty: 3.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr

100

0.00



Thermoform

Memo

0.00

Thermoforming Machine

Machine Set-Up

BB 07/07/01

110

0.00



Thermoform

Memo

0.00

Thermoforming Machine

1-Cut Sheet to required Blank size

BB 07/07/01 (X3)
M 109703

120

0.00



Thermoform

Memo

0.00

Thermoforming Machine

Thermoform as per Dwg and Folio #FTA025 using tool DT9073

Dwg Rev: 3C
Folio Rev: 3

BB 07/07/01 (X3)

Work Order ID 48590A

Friday, June 26, 2009 11:52:11 AM



Page 2

Item ID: B3822-1KIV
Revision ID: B c Sh
Item Name: Vertical Tunnel, LH-Ivory

Accept



Setup Start



Stop



Start Date: 7/15/2009 Start Qty: 3.00



Cust Item ID:

Required Date: 8/3/2009 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev. Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

BB 09/07/07 X3

140



QC

Quality Control

QC8- Inspect parts - second check

0.00

Memo

0.00

Sh 09/07/08 X3

150



Thermoform

Thermoforming Machine

Memo

1-Trim to finished dimensions as per Dwg

0.00






0.00



BB 09/07/08 X3




Work Order ID 48590A

Friday, June 26, 2009 11:52:11 AM

Page 3

Item ID: D3822-1KIV	Accept		Setup	Start	
Revision ID: B <i>ce</i>				Stop	
Item Name: Vertical Tunnel, LH-Ivory					
Start Date: 7/15/2009	Start Qty: 3.00		Cust Item ID:		
Required Date: 8/3/2009	Req'd Qty: 3.00		Customer:		
Reference:					

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160  QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00	<i>BB 09/07/08 (X3)</i>			_____	_____	_____	_____
170  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	<i>=> 8016769 (43)</i>			_____	_____	_____	_____
180  Packaging Packaging	Identify as per dwg & Stock Location: _____ Memo	0.00 0.00	<i>9/7/9 (30) Sq</i>			_____	_____	_____	_____

Picklist Print

Page 1

Friday, June 26, 2009 11:52:10 AM

Work Order ID: 48590A



Parent Item: D3822-1KIVRevB *cc*



Parent Item Name: Vertical Tunnel, LH-Ivory

Start Date: 7/15/2009

Required Date: 8/3/2009

Comments:

Start Qty: 3.00

Required Qty: 3.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MKYD6185S.080-P3- 62015		Purchased	No			100	sf	0.0000	23.4117			



6185 KYDEX .080"

BB 09/07/08
M109723

Date: Monday, 15/06/2009 4:19:46 PM
 User: Julie Dawson

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : VERTICAL TUNNEL L/H, IVORY
Job Number : 48590A	
Estimate Number : 13585	
P.O. Number :	Part Number : D38221KIV
This Issue : 15/06/2009 S.O. No. :	Drawing Number : D3822-1
Prsht Rev. : NC	Project Number :
First Issue : / / Type : THERMOFORMING	Drawing Revision :
Previous Run : 47672A	Material : MKYD6185S080P362015
Written By :	Due Date : 22/06/2009 Qty: 3 Um: Each
Checked & Approved By : <u>Julie Dawson</u>	
Comment : Est. A New Issue 08/09/17 DL Rev. B Dwg. Update 09/02/09 DL verified by:DD Est Rev. C Add Colour Code 09/06/02 DL	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
----------------	------------------------------	----------------------

1.0	MKYD6185S080P362015	6185 KYDEX .080"
-----	---------------------	------------------



Comment: Qty.: 7.4028 sf(s)/Unit Total : 37.0140 sf(s)
 6185 Kydex .080" Ivory

BB M109703,

2.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
-----	----------------	------------------------------



Comment: HAND FINISHING THERMOFORMING

1) Machine set up

BB 09/07/01

3.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
-----	----------------	------------------------------



Comment: HAND FINISHING THERMOFORMING

1) Cut sheet to required blank size

BB 09/07/01 x3

4.0	THERMOFORMING	THERMOFORMING MACHINE
-----	---------------	-----------------------



Comment: THERMOFORMING MACHINE

Thermoform as per Dwg. D3822-1 and folio (FTA 025) using tool DT 9073

Dwg. Rev. C
 Folio Rev. B

BB 09/07/01 x3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 15/06/2009 4:19:47 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: VERTICAL TUNNEL L/H, IVORY

Job Number: 48590A

Part Number: D38221KIV

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Visually inspect for proper formation of each part

BB 09/07/08 X3
DL 09/07/08 X3

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

DL 09/07/08 X3
BB 09/07/08 X3

7.0

HAND FINISH TH

HAND FINISHING THERMOFORMING



Comment: HAND FINISHING THERMOFORMING

1) Trim to Finished Dimensions

BB 09/07/08 X3

8.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Check dimensions to ensure conformity to drawing tolerances.

BB 09/07/08 X3

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

809/07/08 X3

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 4859017
Description: Vertical tunnel LH Entry		Part Number: D3822-1KV
Inspection Dwg: D3822-1	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than _____"	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: RB

Date: 09/02/08

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.8	Min	1.0	✓			
.3	Min	.40	✓			
.55	Min	.69	✓			
.040	Min	.050	✓			
.050	Min	.69	✓			

Measured by: RB

Date: 09/07/08

Audited by: S

Date: 09/07/08

Prototype Approval: AL

Date: 10/1/08

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	

8

7

6

5

4

3

2

1

D

C

B

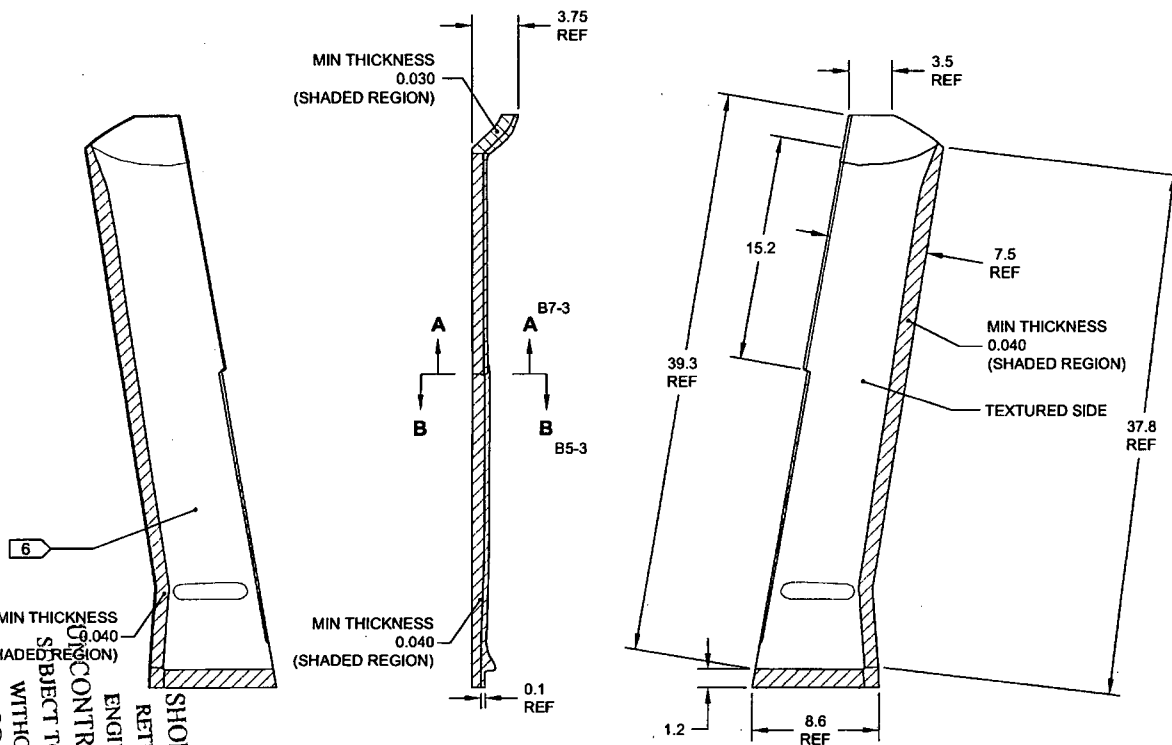
A

D

C

B

A



D3822-1 VERTICAL TUNNEL, LH
(BELL 206 A/B)

RELEASED
10/2/2008

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: 1.1 lbs
- 8) TOOLING: THERMOFORM PER MOLD DT9073 PER DART QSI 022. TRIM PER MOLD.
- 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED

PART NUMBER	DESCRIPTION
D3822-1KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-1KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

C	ADD STEEL GRAY COLOUR OPTION, ADD IVORY P/N'S D3822-1/-2/-3/-5/-7(KIV) AND ADD STEEL GRAY P/N'S D3822-1/-2/-3/-5/-7(KGY) (ZN A5-1, A5-2, A5-4, A5-5, A5-6)	PH	09.05.05
B	37.8 WAS 38.8 (ZN C8-4); MODIFY TOP OF -3 AND ADD VIEW J (ZN A3-4); INCREASE JOGGLE ON -3 (ZN C6-4); UPDATE VIEW F (ZN A1-4); REASON: TO IMPROVE FIT OF D206-781-151 KIT	PH	09.02.09
A	NEW ISSUE	PH	08.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>PH</i>		
DRAWN	<i>PH</i>		
CHECKED	<i>PH</i>		
MFG. APPR.	<i>PH</i>		
APPROVED	<i>PH</i>		
DE APPR.	<i>PH</i>		
DATE	09.05.05		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. REV. C
D3822 SHEET 1 OF 6
TITLE SCALE
VERTICAL TUNNEL (BELL 206 A/B) NTS

COPYRIGHT © 2008 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

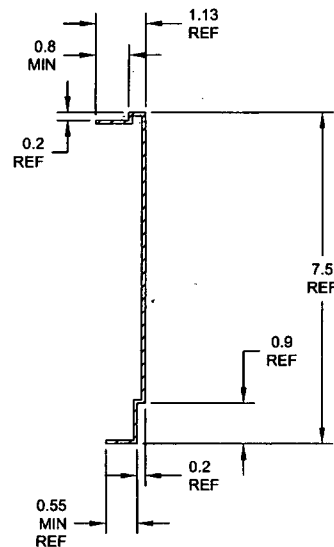
8 7 6 5 4 3 2 1

D

C

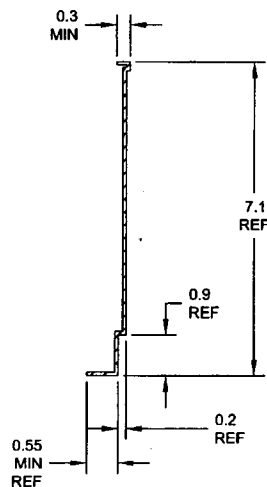
B

A



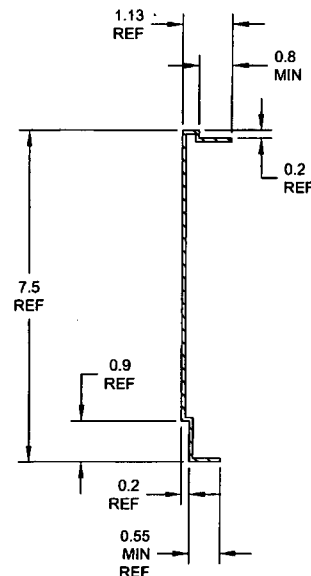
SECTION A-A

C6-1



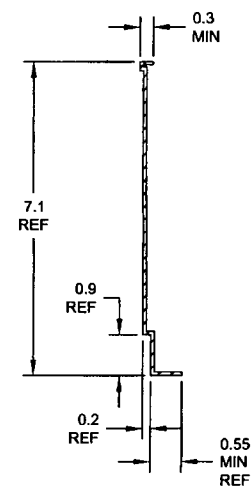
SECTION B-B

C6-1



SECTION C-C

C4-2



SECTION D-D

C4-2

NO 4851018
WORK ORDER
SUBJECT TO AMENDMENT
WITHOUT NOTICE
UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY

RELEASED
09/05/05

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3822	SHEET 3 OF 6
APPROVED		TITLE	SCALE
DE APPR.		VERTICAL TUNNEL (BELL 206 A/B)	NTS
DATE	09.05.05	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries